

## CHAPTER 4:

### A FIELD STUDY OF FACTORS AFFECTING RISK BELIEFS

#### 4.1 The Policy Dilemma of Superfund Sites.

Superfund sites have created intense public concern both for residents living near such sites and for the general public. For people who live near a Superfund site, fears of cancer or other health problems are very real, and such fears genuinely reduce the quality of life. Many residents living near a Superfund site judge that the health risk is substantial. In contrast, experts often judge the risks from particular sites to be very small, or at least significantly smaller than they are in the judgment of the residents.

The discrepancy between the large subjective risk that the public believes is at issue and the small risk experts believe is scientifically founded creates a policy dilemma for institutions concerned with risk management. Should large sums of money be spent cleaning up Superfund sites when experts' judgment of the risk imposed by the site to be small? Is the harm to residents near such sites in some sense real even if health is not actually affected adversely? If a Superfund site is not cleaned up because the expert assessments of risk indicate only a small risk and the local population still believes the site to be harmful, has a disservice been done? Can a community's beliefs change to better reflect what is actually known about possible risks?

The study summarized here explores these issues in the context of a particular landfill site located near a large number of homes. Expert estimates of the risks associated with this site were low, but nearby residents were quite concerned about the effects of the landfill on their health. We modeled housing prices to determine whether the

residents' concerns were measurable in terms of economic damages, and we surveyed residents to identify the sources of these economic and psychological damages.

#### 4.2 The Site.

As background for our survey and study of property values, we briefly describe the site and its history. The Operating Industries Inc. (OII) Landfill is located between the communities of Montebello and Monterey Park in the Los Angeles, California metropolitan area (See Figure 4.1). OII opened in 1948 as a municipal landfill and began accepting hazardous wastes in 1976. OII stopped accepting hazardous materials in January, 1983; and in October, 1984 the landfill reached its capacity and was closed. At that time the OII Landfill was proposed for inclusion on the National Priorities List for "Superfund" monies. The landfill covers 190 acres and contains approximately 30 million cubic yards of refuse, which is generating sufficient landfill gas (methane) to be commercially extractable.

Several land use and policy changes have affected the site and the surrounding area. During the early 1970s, the city of Montebello approved development plans for residential housing along the southern edge of the landfill. Original plans were to reclaim the landfill area and to build a golf course and park. The housing development coincided with several other land use changes in the area, including the construction of the Pomona Freeway, which dissects the OII Landfill. Construction of the freeway restricted activities at the landfill to the area of the site south of the freeway. As compensation for this loss of area, the height restrictions at the landfill were relaxed. This increase in the height limitation has been linked to increased erosion problems including slope failure and mudslides,

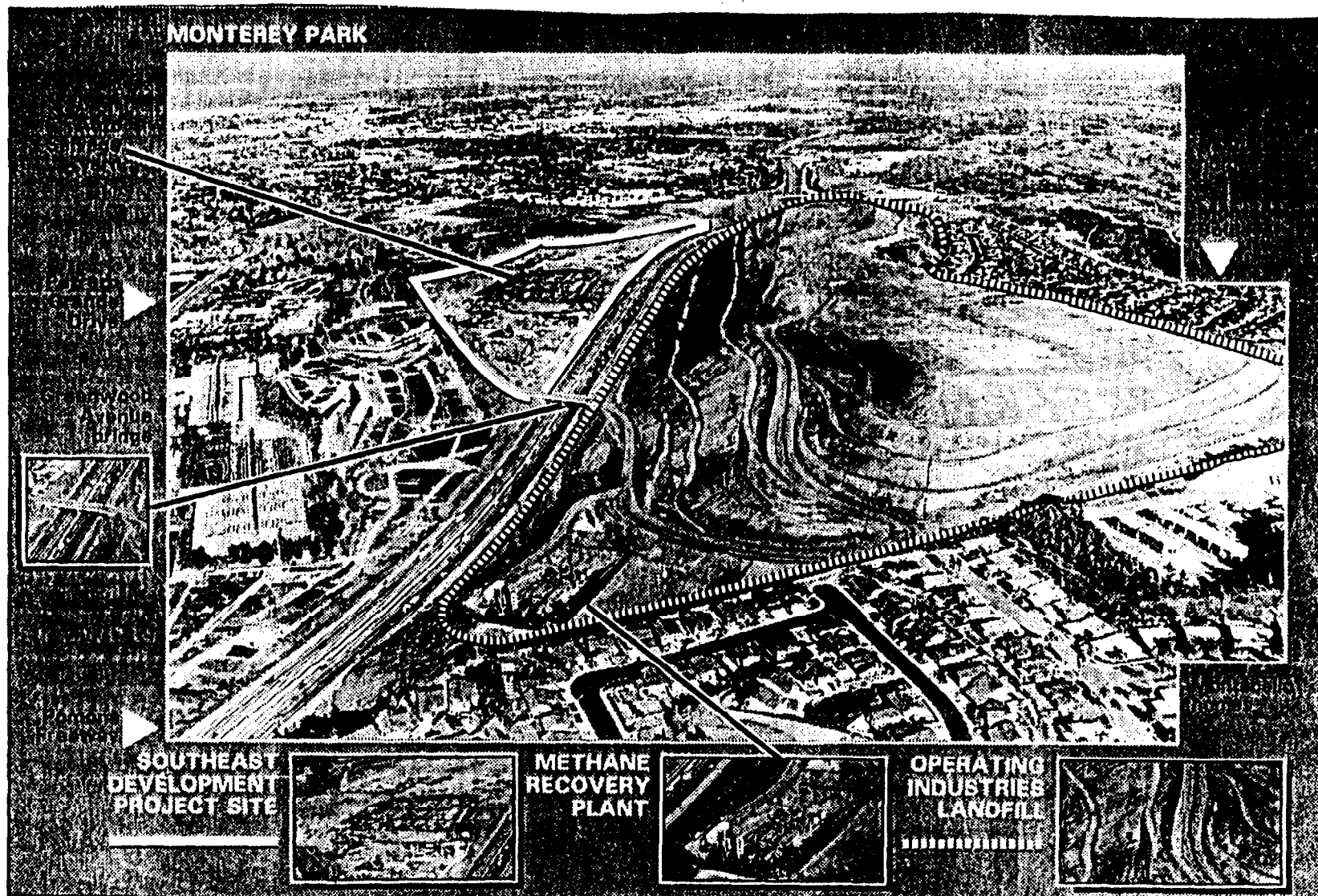


FIGURE 4.1

KEN LUBAS and MICHAEL HALL / Los Angeles Times  
Aerial view eastward along Pomona Freeway through Monterey Park outlines landfill site nominated for federal Superfund list.

which have exposed decaying refuse.

Soon after residents occupied the newly constructed homes in the mid 1970s, they began to complain of odors to the office of the South Coast Air Quality Management District. Complaints of rodents and leachate pooling off-site accompanied the odor problems. Additional wells for collection of landfill gas and better leachate control systems have been installed since 1983 to mitigate odors and reduce risks. In early 1985, the U.S. Environmental Protection Agency began feasibility studies of further remedial measures.

In 1979, some residents of the immediate area formed a group called Homeowners to Eliminate Landfill Problems (HELP) to organize their efforts to eliminate odor and health and safety problems emanating from the OII Landfill. HELP has a membership of approximately 460 dues-paying families. Issues on the HELP agenda include possible health problems associated with the site, leachate disposition, migrating gas, landfill use after closure, and property devaluation. Media attention at the site has been intense over the past several years. Television, radio and regional newspaper coverage has accompanied local coverage from newspapers, community meetings and an EPA newsletter, The OII Update. The nomination of the OII for the National Priorities List has also been a significant catalyst for media attention.

#### 4.3 Expert Judgments of the Health Risk.

It is not our purpose either to defend or to criticize the scientific studies of the OII Landfill or the expert judgment of its risk to health. In this section we simply want to document what that judgment is so that we can compare it to the judgments of the residents living near the OII site.